

Patent claims

1. A device for the structured storage or handling of optical waveguides, especially a cable sleeve, with a frame (37) and with a number of splice cases (49), a number of splice cases (49) being respectively arranged one above the other on a front side (40) and on a rear side (41) of the frame (37) and pivotably fastened to the frame (37), characterised in that fiber guiding elements (50) for optical fibers (66) are fastened at least to one vertically running narrow side (43) of the frame (37) in such a way that the optical fibers (66) are guided laterally next to the splice cases (49) or laterally next to the frame (37) in the region of the or each narrow side (43).
2. The device as claimed in claim 1, characterised in that the fibre guiding elements (50) are fastened exclusively to one vertically running narrow side (43) of the frame (37), and in that the optical fibres (66) are guided laterally next to the splice cases (49) exclusively in the region of this one narrow side (43).
3. The device as claimed in claim 1, characterised in that the fibre guiding elements (50) are fastened to both vertically running narrow sides (43) of the frame (37), and in that the optical fibres (66) are guided laterally next to the splice cases (49) in the region of these two narrow sides (43).
4. The device as claimed in claim 1, 2 or 3, characterised in that the fibre guiding elements (50) arranged in the region of the or each narrow side (43) form at least two vertically running guiding channels (52, 53) for optical fibres (66), a first guiding channel (52) being assigned to the

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front side (40) of the frame (37) and a second guiding channel (53) being assigned to the rear side (41) of the frame (37).

5 5. The device as claimed in claim 4, characterised in
that the two gliding channels (52, 53) are
spatially separated from one another by at least
one vertically running separating wall (54), and in
that the or each separating wall (54) has an
10 aperture (55) in a lower portion of the same, so
that the optical fibres (66) can be diverted from
the first guiding channel (52) into the second
guiding channel (53), and consequently from the
front side (40) of the frame (37) to the rear side
15 (41) of the frame (37).

6. The device as claimed in claim 4 or 5,
characterised in that the guiding channels (52, 53)
are subdivided into two guiding channel
20 compartments (56, 57) in each case in such a way
that at least two vertically running guiding
channel compartments (56, 57) respectively extend
in the region of the front side (40) of the frame
(37) and in the region of the rear side (41) of the
25 frame (37), to be specific in each case at least
one inner guiding channel compartment (56) and at
least one outer guiding channel compartment (57).

7. The device as claimed in claim 6, characterised in
30 that the two inner guiding channel compartments
(56), of which a first runs in the region of the
front side (40) of the frame (37) and a second runs
in the region of the rear side (41) of the frame
(37), are separated from one another by the or each
35 separating wall (54).

8. The device as claimed in claim 6 or 7,
characterised in that the guiding channel

compartments running in the region of the front side (40) and in the region of the rear side (41) of the frame (37), that is the inner guiding channel compartment (56) and the outer guiding channel compartment (57), are separated from each other by a number of separating webs (58) spaced apart from one another, an aperture (59) respectively being formed between two neighboring separating webs (58) in such a way that the optical fibers (66) in the region of the front side (40) and in the region of the rear side (41) of the frame (37) can be diverted from the respective inner guiding channel compartment (56) into the respective outer guiding channel compartment (57).

9. The device as claimed in one or more of claims 1 to 8, characterised in that the fibre guiding elements (50) arranged in the region of the or each narrow side (43) form likewise curved guiding channels (60), it being possible for individual optical fibers (66) to be fed to the splice cases (49) through the curved guiding channels (60).

10. A device for the structured storage or handling of optical waveguides, especially a cable sleeve, with a frame (37) and with a number of splice cases (49), a number of splice cases (49) being respectively arranged one above the other on a front side (40) and on a rear side (41) of the frame (37) and pivotably fastened to the frame (37), characterized in that a drawer (82) that is guided in the frame (37) can be pulled out in the horizontal direction from a first vertically running narrow side (43) of the frame (37), the drawer (82) being arranged in the pushed-in position between the splice cases (49) assigned to the front side (40) and the splice cases (49) assigned to the rear side (41) of the frame (37),

and the drawer (82) serving for the storage of uncut multifiber buffer tubes (65) of optical fibers (66).

- 5 11. The device as claimed in claim 10, characterized in that the drawer (82) has on one vertically running side at least one actuating grip (83) and has on horizontally running sides guides (84) for the multifiber buffer tubes (65).
- 10 12. The device as claimed in claim 10 or 11, characterized in that fiber guiding elements (50) for optical fibers (66) are fastened to a second, vertically running narrow side (43) of the frame (37), which lies opposite the first narrow side (43), in such way that the optical fibers (66) are guided laterally next to the splice cases (49) exclusively in the region of this second narrow side (43).
- 15 13. The device as claimed in claim 12, characterized by guiding elements (50) for optical fibers (66), which are formed as claimed in one or more of claim 4 to 9.
- 20 14. A device for the structured storage or handling of optical waveguides, especially a cable sleeve, with a frame (37) and with a number of splice cases (49), a number of splice cases (49) being respectively arranged one above the other on a front side (40) and on a rear side (41) of the frame (37) and pivotably fastened to the frame (37), characterized in that guiding channels (75) and/or guiding ribs (73, 74) are arranged within the splice cases (49) in such a way that the optical fibers (66) are guided within the splice cases (49) in a circular manner.
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15. The device as claimed in claim 14, characterized in that the guiding channels (75) and/or guiding ribs (73, 74) are arranged in such a way that at least three interlinked and overlapping circular guides (76, 77, 78) are formed in each splice case (49).
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16. The device as claimed in claim 15, characterized in that the circular guides (76, 77, 78) are aligned in relation to one another in such a way that the circular guides (76, 78) merge tangentially with one another in a central portion of the splice cases (49).
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17. The device as claimed in claim 15 or 16, characterized in that the circular guides (76, 77, 78) are aligned in relation to one another in such a way that the optical fibers (66) can be guided in a circular manner with approximately the same radii, irrespective of their length.
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18. The device as claimed in one or more of claims 15 to 17, characterized in that the circular guides (76, 77, 78) are aligned in relation to one another in such a way that stowage space (80) for excess lengths of the optical fibers (66) is formed in lateral portions of the splice cases (49).
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19. A device for the structured storage or handling of optical waveguides, especially a cable sleeve, with a frame (37) and with a number of splice cases (49), a number of splice cases (49) being respectively arranged one above the other on a front side (40) and on a rear side (41) of the frame (37) and pivotably fastened to the frame (37), characterized in that optical fibers (66) are guided by cylindrical axial bodies (67) of the splice cases (49) in such a way that a direction of insertion of the optical fibers (66) into a splice
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- case (49) runs approximately parallel to a pivoting axis of the respective splice case (49), and in that the cylindrical axial body (67) of the respective splice case (49) is axially slit in such a way that the optical fibers (66) can be inserted into the cylindrical axial body (67) in the radial direction through an opening (68).
20. The device as claimed in claim 19, characterized in that integrated in the splice cases (49) are guiding webs (69, 70), which prevent the optical fibers (66) from falling out from the opening (68) of the cylindrical axial body (67), in particular when the respective splice case (49) is pivoted.
21. The device as claimed in claim 19 or 20, characterized in that the guiding webs (69, 70) have the effect that the optical fibers (66) always lie against an inner wall (71) of the cylindrical axial body (67) lying opposite the opening (68).
22. The device as claimed in one or more of claims 19 to 21, characterized in that the cylindrical axial bodies (67) of the splice cases (49) are formed as hollow cylinders.